

2 Cryptids, classification and categories of cats

An ethnozoological study of unidentified felids from eastern Indonesia

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Introduction

Cryptozoological species, or ‘cryptids’, are categories of animals which some group of humans considers real but are not attested, or have yet to be attested, by international zoology. Occasionally, anthropologists and ethnobiologists (or, more specifically, ethnozoologists) record local representations of animals, or what sound like animals, that do not immediately match known scientific species. Ethnozoologists might subsequently find a match, but they might not. In the latter case, anthropologists, to mention only these, regularly conclude they have recorded a name for a spirit or a fantastic being.

Sometimes, to a western ear, such unidentified categories do indeed sound fantastic. The ‘Loch Ness monster’ is one example. The Okapi (*Okapia johnstoni*), before it was ‘discovered’ by Europeans early in the twentieth century, might be another. However, these are not the only kind of cryptid an ethnozoologist might learn about. Another sort would be an animal of a known type which is, so to speak, not supposed to be where people say it is. Pumas (or cougars, *Puma concolor*) in the eastern United States (Downing 1984) or similar big cats in Wales (Hurn 2009 and this volume) or the southwest of England (Franklin, this volume) would be instances of this kind of cryptid. Often, though, the possible referent of a locally recognised cryptid is not immediately obvious: a category, especially if it does not sound supernatural or zoologically implausible (as would a creature reputedly capable of walking through walls, changing its form, or speaking a human language), could be either a new species, a known species not previously documented in the locality, a documented species which has somehow been misrepresented or represented in a way that makes it sound like something very different – or, indeed, it may be completely fictitious.

Explaining the emergence and persistence of categories of the last two sorts might be thought a special preserve of anthropology. Yet anthropologists have been neither particularly enthusiastic about nor adept at developing explanations of categories whose ontological status in international science is uncertain or which otherwise possess a degree of zoological plausibility. Of course, formulating a sociological or symbolic explanation for a cultural representation – the

usual anthropological recourse – does not in itself prove that what is represented has no basis in empirical reality (see Forth 2004: 115–137). By the same token, sociological or symbolic interpretations of manifestly or possibly non-empirical attributes can be equally valid when the phenomenal referent is an unequivocally known animal (for example, the pangolin among the Lele, lemurs identified as spirits of the dead among Malagasy peoples, and snakes, considered as embodiments of earth spirits in many parts of the world [see Attala, this volume]). Nevertheless, social scientists tend generally to assume that such interpretations discredit or at least reduce the zoological credibility of culturally represented images. The fact of ontological ambiguity – not knowing in advance whether the referent of a local category is empirically real or not real – may in itself be sufficient to dissuade anthropologists from becoming involved in cryptozoological questions (and it would not be difficult to argue that, for a number of reasons, they are well advised to continue this avoidance!). Yet in view of the privileged access anthropologists have to local communities through long periods of co-residence and participation of various kinds, they should be well placed to shed special light on cryptozoological problems. Ethnozoologists, who are often simultaneously social or cultural anthropologists, should be able to provide even greater insight, given their access to local environments and local zoological knowledge.

The focus of this chapter is the way the Nage people, who reside in the central part of the eastern Indonesian island of Flores, classify cats. More particularly, I am concerned with the identity of a large felid that appears not to fit any Flores species currently recognised by international zoologists. A major aim is to demonstrate the value non-western zoological knowledge, or ‘folk zoology’, may hold not simply for cryptozoology (which surely can never be an end in itself) but indeed for international zoology. As I show especially with reference to local categories of felids, Nage representations of what, to a western eye, may appear as ‘cryptids’ contradict a view, implicit in a good deal of modern anthropology – but, ironically, sharing much in common with older European representations of ‘primitives’ – that members of small-scale, non-western societies are governed by an unbridled imagination and so typically formulate and express their thought concerning non-human animals, and even organise their behaviour in relation to these, on the basis of all sorts of fantastic notions which are either empirically false or have little grounding in reality.

Hairy hominoids and far-ranging dragons

During ethnographic fieldwork conducted over the last thirty years on Flores, I have come across two other sorts of crypto-categories besides the mystery cats. Such categories might be called ‘ethno-cryptids’, but only insofar as local folk zoologists themselves are unsure of their status as empirical creatures or how they might be related to known ethnotaxa. One sort of crypto-category – the

Loch Ness monster variety as it were – concerns what would appear to comprise non-sapiens hominoids or hominins. In some parts of the island, these creatures are described as currently extinct, and one category reckoned to be extinct (a hominoid named *ebu gogo*; see Forth 2012a: 12–49; Forth 2012b; and Turner, this volume) has been hypothetically identified with the recently discovered sub-fossil hominin interpreted as the type specimen of a new species, *Homo floresiensis*. Images of this sort, from Flores and other parts of Southeast Asia, are the subject of a recently published book (Forth 2012a). What light anthropology or ethnozoology might shed on such ‘wildmen’, as I have previously chosen to call them, is not my major concern in what follows – largely because the matter has been discussed elsewhere. Indeed, for the moment I shall say no more about them, though they will briefly come up again in my conclusions.

The other kind of ‘cryptid’ reported by people from several parts of Flores exemplifies a known species seemingly out of place – or, rather, did so until its existence in previously unsuspected places was established by international scientists. This is the famous Komodo monitor, or ‘Komodo dragon’ (*Varanus komodoensis*). The dragons are interesting because, prior to 1912, they were known empirically only to the human inhabitants of Komodo Island and neighbouring islands in eastern Indonesia. Their scientific discovery followed a report by a Dutch administrator, van Steyn van Hensbroek, who had received information from Flores Islanders that the lizards occurred not only on Komodo but also in the vicinity of Labuan Bajo, in the far western part of Flores (Ouwens 1912: 1). Until 1980, the western Flores region of Manggarai, in which Labuan Bajo resides, was regarded as the eastern extent of the Komodo dragon’s range. However, from the 1910s and 1920s, ethnographers – or, more exactly, amateur ethnographers in the shape of Dutch colonial officials and missionaries – began recording local accounts of the huge lizards from parts of Flores much further to the east (see Van Suchtelen 1921; De Jong 1937).

When I myself began research on Flores in 1984, local people claimed that Komodo dragons, although rare, could be found in various parts of north central and northeastern Flores. The easternmost location was an area just west of the eastern Flores port town of Maumere, the island’s largest settlement. That Komodo dragons could occur this far away from Komodo Island seemed unlikely, even somewhat fantastic. It also suggested possible confusion with another monitor species, the much smaller water monitor (*Varanus salvator*), a common animal found throughout Flores and on most other eastern Indonesian islands. However, in 1985 a team of Indonesian researchers did indeed discover Komodo dragons in northeastern Flores, in a region not far to the west of the port town of Maumere, where they managed to capture four specimens (Ciofi and Gibson 2006). This was in the vicinity of Nondo, from where H. R. Rookmaker, a Dutch colonial administrator, recorded local reports of Komodo dragons being captured, apparently by natives, in 1926 (De Jong 1937).

Adding to these older reports, accounts I recorded from villagers in 2008 provide strong circumstantial evidence for a population of Komodo dragons inhabiting the Golo Nio region of north central Flores (Forth 2010). Golo Nio is one place where international zoologists have yet to conduct research or obtain specimens of *Varanus komodoensis*; hence attention to the claims of Golo Nio people may well repay such a research effort in the future, especially as the species is threatened in all parts of its range and its numbers have become significantly reduced in the last few decades. For anthropology, on the other hand, local accounts of Komodo dragons – including the initial reports by Flores Islanders of ‘land crocodiles’ or lizards of ‘unusual size’ living exclusively on dry land (Ouwens 1912: 1) and inhabiting the Labuanbajo area and Komodo Island – have another, equally important significance. For they provide a clear demonstration of how non-western representations of a creature that may initially sound improbable to western ears can in fact be zoologically accurate and thoroughly grounded in empirical reality.

Wild cats

According to one possible interpretation, a putative wild cat on Flores – that is, a truly wild, not a feral, cat – may represent another instance of a known species showing up in a hitherto unsuspected place. Since wildmen, whatever their status in the past, are unlikely to be an empirical species of non-sapiens hominins that survives to the present day, and since Komodo dragons have, for some time, been well-known from Komodo Island and western Flores, for ethnozoology the identity of the wild cat, named separately from other cats as *ngo ngoe*, is in some ways more intriguing. My information on this cat derives from a variety of local accounts. These include interviews with eighteen men who, on at least one occasion, had seen specimens of *ngo ngoe*, mostly animals killed by hunters or caught in snares.

Besides *ngo ngoe*, Nage distinguish two other categories of local cats: *meo bo’a* (or the synonymous *meo ola*) and *meo witu*. *Meo bo’a* (‘village cats’) are domestic cats (*Felis catus*). *Meo witu* (‘forest cats’ or ‘wild cats’) are widely recognised among Nage as feral instances of *F. catus* and moreover as interbreeding freely with domestic cats, which they generally resemble. At the same time, *meo witu* (‘wild cat’) is regularly used in a way that subsumes *ngo ngoe* as a sub-class (see Figure 2.1). Whether domestic or feral, *F. catus*, introduced to eastern Indonesia by Europeans at some time during the last four centuries and to some islands rather more recently, is, according to international zoologists (e.g. Monk et al. 1997) the only felid found on Flores. Existence of a third kind, the aforementioned *ngo ngoe*, would therefore contradict this view.

Nage describe *ngo ngoe* as currently rare, as extinct in some locations, and as probably headed for complete extinction. It is consistent with this, that of fourteen sighting reports in which dates were mentioned, five related to the 1960s or earlier and another five to the 1970s; hence just four sightings took

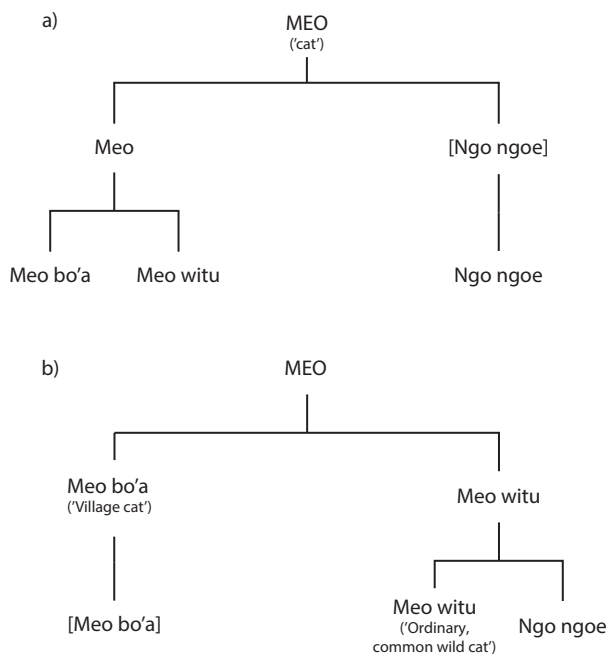


Figure 2.1 Two possible schemes of taxonomic relations among Nage felid categories

place after 1980, the most recent being in 2006 and 2009. Also, of eighteen informants who had seen *ngo ngoe*, mostly killed specimens, all but two had observed the animal only on a single occasion. A large majority of Nage in their forties or younger have never seen one, dead or alive. And, I should add, neither have I.

Nage regard *ngo ngoe* as a type of cat (*meo*), and some suggest they are simply large specimens of feral cats, or more specifically, large male specimens. Yet according to many people, including most eye-witnesses, *ngo ngoe* denotes a noticeably larger animal distinct from feral cats, which includes both males and females, and which is probably unable to mate with other felines. One eye-witness account concerned a specimen, killed during a hunt with dogs, which, although characteristically large, was female.¹ On the other hand, all other sighting reports concerned male animals, and Nage generally agree that the majority of *ngo ngoe* encountered within living memory have been males.

Nage who do not regard *ngo ngoe* as a kind distinct from other local felids, as well as those who do, describe the creatures as much bigger than feral or domestic cats. Most often they describe them as growing as large as a dog, or even a large dog. Of fourteen interviewees who mentioned size, seven compared the size to that of a young or year-old dog or a bitch, six to that of a ‘large’ or male dog, while one simply said a dog. Discussing a specimen they

had observed some years previously, two men estimated the animal's length, from head to tail, as one metre and its height as half a metre; these dimensions one man then compared to a low table, which turned out to match his estimate almost exactly. Other men mentioned length estimates of about a metre, while yet another compared the size of an animal he had seen to that of his hunting bitch, a dog with a head and body length of 68cm and a shoulder height of 44cm. I was not able to measure the tail in this case, but by all accounts *ngo ngoe* tails are longer and straighter than those of other cats. Two men described specimens with tails as long as a man's hand and forearm, but in any case the tails are longer than those of domestic cats, which on Flores often have short and bent tails. Sometimes, Nage crop the tails of domestic cats, especially ones inclined to wander far from home which they infer were sired by feral toms. Several informants further described *ngo ngoe* tails as straighter than even a feral cat's, or as like a dog's. The legs are usually characterised as intermediate in size between that of a dog and of a domestic cat. One man described a live specimen he had encountered 'striding like a tiger' (Indonesian/Malay *harimau*; referring apparently to tigers he had seen on television), by contrast to other cats whose strides are smaller and slower. Information on the head and muzzle of *ngo ngoe* was rather more consistent. According to a general representation, the shape and size of the body is like a dog but the head is that of a cat. Two men, however, described the muzzle as longer than in other cats, and hence more like a dog's, while another spoke of a relatively small muzzle in relation to a broad face and jaw. Several men also mentioned whiskers much longer than those of other cats. Information on the ears was similarly various: some thought *ngo ngoe* ears were proportionally larger or longer than those of other cats, but others did not.

Whereas domestic cat and feral cat pelage is recognised to vary, Nage usually describe the pelage of *ngo ngoe* as uniform, and typically as 'striped'. This they regularly compare to the fur of a tiger. A less often mentioned comparison is the striped hide of an immature wild pig. At the same time, two killed specimens of *ngo ngoe* were described as all 'black' (*mite*, which however can further denote dark shades of other colours). More generally as well, it is recognised that black exemplars can occur, although according to one informant these frequently show white or light-coloured spots on the tail. *Ngo ngoe* fur is characterised as coarser than the fur of domestic and feral cats, but smoother than a dog's. Referring to a particular specimen, one man described thick hair around the jaw.

Uttering a deep sound imitated as '*ngo ngoe*', the cat's vocalisations, after which the animal may be onomatopoeically named, are also louder and deeper than other felids, and more resonant. These are most often heard at night, when the creature is not seen. According to one account, when treed by hunters (usually in daylight), *ngo ngoe* remain silent; in one opinion they will utter no sound even when subsequently brought down and savaged by hunting dogs.²

Ngo ngoe are stronger and more aggressive than feral cats and for this reason, and because of their greater ability to move rapidly in trees, they are

far more difficult to hunt. Nage say that it requires at least four or five hunting dogs to kill one. According to one report, a lone hunter without dogs could find the animal standing its ground (unlike other wild cats, which would immediately flee), and he would then be in some danger. In the same vein, Nage claim that feral kittens (*ana meo witu*) can be raised and tamed but immature *ngo ngoe* cannot. Owing to their greater size and strength, *ngo ngoe* are further described as having a more varied diet than feral cats, being able to hunt larger animals such as immature deer, wild piglets, and Giant rats (*Papagomys armandvillei*) in addition to the smaller rodents and birds that are the mainstay of feral cats. This, however, appears to be mainly an inference, as I never found anyone who had actually observed *ngo ngoe* hunting the larger prey.

Owing to the creatures' greater size and aggressiveness, most Nage I questioned doubted whether *ngo ngoe* could mate with domestic cats; in this connection some also mentioned how male *ngo ngoe* – apparently despite their boldness in other settings – are wary of entering settlements where female domestic cats are found. At the same time, it was thought more likely that *ngo ngoe* can mate with other, smaller wild (feral) cats, although it seems that no one had actually observed such mating. Here it should be mentioned that Nage views on the possibility of successful mating do not invariably coincide with an assessment of two nominally distinct categories as belonging to different 'kinds' (a notion nowadays usually expressed with the Indonesian term *jenis*).³ Thus, two experienced hunters, both of whom offered detailed accounts of *ngo ngoe*, claimed the creatures were a very distinct kind of wild cat that was 'original' (Indonesian *asli*) and could not possibly descend from feral felines, yet they did not rule out that they might be able to mate with feral cats. According to the one report I have on litter size, *ngo ngoe* produce smaller litters than other cats, comprising just two or three kittens. By contrast, both domestic and feral cats (*meo bo'a* and *meo witu*) have larger litters, as many as six or seven according to a usual estimate. International zoologists have specified litter size in domestic cats as between one and ten, with a mean between four and five (Deag et al. 2000: 25).⁴

Evidence for a Flores wild cat

In what follows, I consider how far Nage descriptions of *ngo ngoe* point to the presence on Flores of a truly wild felid that international zoologists have yet to document for the island. Afterwards, I discuss how far the same descriptions are consistent with the possibility that what Nage label as *ngo ngoe* are nothing more than very large specimens of feral cats – an interpretation which, as noted, is advanced by some (albeit probably a minority of) Nage themselves. Before discussing the two alternatives, however, attention should be given to another possibility, namely that *ngo ngoe* denotes a category that is wholly or largely imaginary.

Having listened to Nage talking about *ngo ngoe* during multiple visits over a period of thirty years, I can state categorically that nothing they say

suggests they are anything other than empirical creatures. It is conceivable that they are partly imaginary, which is to say that their representation has its basis in ordinary felids but has been exaggerated and elaborated in a non-empirical direction (as, for example, in their claimed resemblance to ‘tigers’). But what could motivate Nage to imagine, and moreover to name, a distinct kind of wild felid is quite unclear. In this connection, it is important that people describe *ngo ngoe* in a thoroughly prosaic or naturalistic way. They do not attribute to them any supernatural or otherwise implausible qualities. It is also worth noting that Nage regularly articulate a distinction of natural and supernatural beings, identifying the latter in their own language as entities that exemplify or manifest *nitu*, a general term for ‘spirit, spiritual being’. Somewhat ironically, the mystery cats contrast in this respect with feral cats (*meo witu*) insofar as the latter are the explicit object of taboos on killing and consumption bound up with an association of *meo witu* with earth spirits (*nitu*; Forth 2007). In this context, *meo witu* could be understood as implicitly including *ngo ngoe*; but the point is that neither in this nor any other connection is *ngo ngoe* expressly named as a taboo category. In this respect, *ngo ngoe* are comparable to the similarly rare and disappearing Komodo dragons in north coastal Flores, since the giant reptiles also are scarcely subject to any fantastic representation – by contrast to all smaller kinds of lizards named and recognised by Florenese, which are indeed accorded manifestly non-empirical attributes (Forth 2010).

Considered as a hypothetical cultural construct, the image labelled *ngo ngoe* does not fulfil any obvious social or ideological function. Anyone trying to make this argument, therefore, must answer the question: if Nage have created a fictitious creature, why have they done so? Conceivably, a clue could be found in local comparisons of *ngo ngoe* to tigers. At present, tigers (*Panthera tigris*) still occur on Java and Sumatra and, until recently, on the island of Bali, which, like the two larger islands, falls west of Wallace’s line and thus within in the Oriental biogeographic realm.⁵ As Flores lies east of the line, and in the Australasian biogeographic realm, one should certainly not expect to find real tigers on the island. Nevertheless, it might just be argued that the category *ngo ngoe* has been culturally constructed to provide Florenese people with a local equivalent of western Indonesian tigers – perhaps as a way of representing their land as not so different from Java, or as a means of promoting a more diffuse equivalence with the Javanese. However, not only does this interpretation assume a conscious and special association of tigers with western Indonesians (and especially the numerically and politically dominant Javanese); it also requires that Nage knew of tigers prior to the development of the named category *ngo ngoe* and, moreover, that the socio-political contrasts between western and eastern Indonesians, hypothetically motivating a Florenese claim to local tigers, were equally recognised at the time. In fact, it is more likely that the tiger comparison is a twentieth-century addition to an established representation, or at least one subsequent to the category’s emergence. Finally, it should be emphasised that Nage do not say *ngo ngoe* are tigers, or

even that they are as big as tigers, but mostly that their markings resemble those of a tiger.

While one can be sure there are no tigers on Flores, there is, however, a wild felid that occurs on one eastern Indonesian island. This is the leopard cat (*Prionailurus bengalensis*). According to current evidence, eastern Indonesian leopard cats are found only on Lombok Island, immediately to the east of Bali, from where they may in fact have been introduced by humans (Monk et al. 1997). Yet if leopard cats were brought to Lombok, one could easily imagine their being later introduced to Sumbawa, the next large island further east, and from Sumbawa to the next, which is Flores.

One problem with the leopard cat hypothesis is the size of the *ngo ngoe*. Published sources describe leopard cats as not significantly larger than a domestic cat. What is more, Indonesian sub-species of *Prionailurus bengalensis*, a species with ‘the broadest geographic distribution of all the small Asian cats’ (Sunquist and Sunquist 2002: 226), are among the smallest. Descriptions of *ngo ngoe* as attaining the size of a dog, therefore, appear not to match leopard cat statistics. Yet it is important to note that Florenese dogs are themselves small, rarely growing larger than a medium-sized terrier or beagle and with a head to tail length usually no more than a metre – thus not larger than some estimates of *ngo ngoe*. In addition, published sources specifying *P. bengalensis* as the size of a domestic cat evidently refer to larger western house-cats, with an average head to tail length of 0.7 metres or more. Florenese village cats, by contrast, are typically far smaller than western cats, and like cats elsewhere in Indonesia and Malaysia, their tails are often ‘short and bent’ (Payne and Francis 2005: 290).

In addition to absolute size, body proportions also need to be considered. Recalling the long tail attributed to the *ngo ngoe*, it is noteworthy that leopard cat tails are about 40 to 50 per cent as long as the head and body. By comparison with the domestic cat, the head of the leopard cat is relatively small while the ears are ‘moderately long’ and ‘rounded’. At the same time, leopard cats have proportionally longer legs than *Felis catus*, another feature consistent with a characterisation of the species as looking like a ‘diminutive, more slender version of its namesake’ (Sunquist and Sunquist 2002: 226) – which is to say, a leopard. As noted, Nage also speak of *ngo ngoe* legs as longer than a domestic cat’s and, while others contradicted this, some even described the ears as relatively larger or longer. However that may be, relatively smaller heads combined with longer legs and larger ears could also contribute to an overall impression of a larger size, and one more comparable to canine dimensions than to Florenese specimens of *Felis catus*. Expressed another way, if *ngo ngoe* were as large as larger European specimens of *Felis catus*, and therefore of the size of a leopard cat (*Prionailurus bengalensis*), they could indeed appear considerably bigger than Florenese domestic cats, and even as large as smaller Florenese dogs.

Another factor seemingly counting against a hypothetical identification of *ngo ngoe* as leopard cats is the local comparison of *ngo ngoe* pelage with that

of a tiger. As the English name suggests, leopard cats are more spotted than striped; also, rather than spots, darker markings may form rosettes (as, for example, in a jaguar's coat). In 2010, I showed electronic photographs of leopard cats to several Nage men of middle age or older who had closely observed at least one specimen of *ngo ngoe*. The exercise was not particularly productive (largely I think because some respondents had difficulty making out the images). However, of six who provided definite opinions, two judged certain pictures not to correspond to *ngo ngoe* pelage, because the leopard cat markings (rows of spots or striping) appeared to run from head to tail – as indeed they generally do in *Prionailurus bengalensis* – rather than from back to belly, a pattern they described as characterising both the large Flores wild cats and tigers. Nevertheless, the other four informants appeared not to recognise this difference; thus it would seem that many Nage simultaneously regard *ngo ngoe* as resembling both leopard cats and tigers.

Several considerations might explain this. First, Nage villagers know tigers only from media representations and, from insufficient familiarity, including lack of knowledge of the size of *Panthera tigris*, they may therefore be inclined to overgeneralise the tiger's similarity to better-known local felids. Second, leopard cat pelage can vary considerably even within sub-species; noteworthy here is Sterndale's (1884) claim that 'it is useless to lay down ... a very accurate description of the markings of this cat' (cited in Sunquist and Sunquist 2002: 226). Third, and relatedly, Indonesian leopard cat pelage, while otherwise spotted, does in fact show some striping. As Sunquist and Sunquist note (2002: 226), body markings of *Prionailurus bengalensis* sometimes 'coalesce to form lines', and the head is marked by two prominent dark stripes. Finally, the term Nage apply to striped pelage, *déto*, does not refer exclusively to stripes, or even to lines of spots. For it can denote other forms of distinct and regular markings, typically darker ones on a lighter background, as in both leopard cats and tigers, and also the brindled dogs common among Nage. Nage accordingly specify *ngo ngoe* pelage, which they regularly evaluate as 'striking' or 'handsome', mostly as *déto kune* or *déto to*, meaning dark 'stripes' on a 'yellowish' (*kune*) or 'reddish' (*to*) field. This characterisation would equally apply to the coat of a leopard cat, consisting of a yellowish or light copper-coloured ground marked with strongly contrasting dark stripes or spots.

Another feature possibly distinguishing *ngo ngoe* from *Prionailurus bengalensis* are the light or white under parts of the leopard cat. Responding to the aforementioned photographs, however, only one informant clearly specified this as a feature lacking in *ngo ngoe* he had seen. Lighter under parts, it is worth noting, have also been attributed to the 'large-eared cat' of Timor, another mystery felid I describe below. And they are also a feature of tigers.

Although recorded only once, another attribute of *ngo ngoe* consistent with *Prionailurus bengalensis* is litter size: leopard cats typically produce just two or three kittens (Sunquist and Sunquist 2002: 229), precisely the figure recorded for the Florenese wild cats. Other resemblances include the general

representation of *ngo ngoe* as rarer and more wary of humans than feral cats (*meo witu*) and their greater association with wooded areas far from human habitations. Their reputed practice of occasionally entering villages and agricultural settlements to steal fowls is equally consistent with the leopard cat, which in Thailand is well known ‘for attacking and killing domestic poultry’ (Sunquist and Sunquist 2002: 228, citing Lekagul and McNeely 1977). As this should suggest, in the southern part of their range, which would include Indonesia, leopard cats are able to live near settlements, including villages, plantations, and areas of shifting cultivation. However, the cats are ‘always associated with some type of forest cover’, and even when they occur close to habitations, they are ‘not often seen’ owing to ‘a liking for dense cover’ (Sunquist and Sunquist 2002: 227).

Leopard cats are diurnal as well as nocturnal. According to local reports, *ngo ngoe* hunted by Nage have been chased and killed mostly in daylight, while several despatched at night were caught in snares set for other animals. Further suggestive of *Prionailurus bengalensis* are the Nage depiction of *ngo ngoe* as more aggressive than other cats, and their concomitant claim regarding the impossibility of taming immature animals. As the Sunquists note, of all Asian wild cats, leopard cats are reputedly ‘the most difficult to tame ... and even month-old kittens may become unhandleable and intolerant of one another by one year of age’ (2002: 229). In Sumatra, and especially in the province of Bengkulu, young leopard cats are captured and sold as pets (Sunquist and Sunquist 2002: 229, citing Santiapillai and Supraham 1985); but this presumably refers mostly to kittens acquired at a younger age.

The ability of *ngo ngoe* to move rapidly in trees – in which respect one eyewitness described a specimen as jumping between trees and branches faster than a long-tailed macaque (*Macaca fascicularis*) – similarly accords with *Prionailurus bengalensis*, a species characterised as ‘agile climbers’ and as ‘quite arboreal in their habits’ (Sunquist and Sunquist 2002: 227). Finally, it should be mentioned that leopard cats have been known to interbreed with domestic cats and to produce fertile, viable offspring (Sunquist and Sunquist 2002: 229). Although this contradicts the Nage opinion that *ngo ngoe* are too large and fierce to mate with other cats, especially village cats, it nevertheless suggests a sympatry with *Felis catus* which could illuminate divergent local opinions regarding the relation of *ngo ngoe* to the category *meo witu* (referring partly or entirely to feral cats).

***Ngo ngoe* as a large feral cat**

I am not the first writer to consider the possibility of leopard cats on Flores. The missionary zoologist, lexicographer and Flores polymath, Jilis Verheijen, evidently entertained the same hypothesis. In his comprehensive dictionary of Manggarai, the language of western Flores, Verheijen provisionally identified *Prionailurus bengalensis* – or *Felis bengalensis* as the species was designated at the time – as the referent of a category of wild felid known to the Manggarai

people as *énggo* (Verheijen 1967). To test this interpretation, Verheijen sent the carcass of an animal locally identified as an *énggo*, including the skull, to the Dutch Museum of Natural History in Leiden, where it was inspected by the mammalogist A. M. Husson.⁶ According to Husson, who responded to Verheijen's query in a letter dated 8 November 1967, the cat's zygomatic arches differed somewhat from those of a specimen of a Dutch feral house-cat in the museum's possession. On the other hand, Husson noted how the zygomatic arch can be strongly influenced by diet, and furthermore that the length of the Flores cat's carnassial teeth indicated *Felis catus*. He therefore concluded that the creature was nothing other than a feral house-cat (Husson 1967).⁷

Quite apart from the lack of a confirmed specimen, other factors suggest that Nage *ngo ngoe* – apparently like Manggarai *énggo* – may refer to no more than especially large feral cats, as some Nage have themselves concluded. These may be feral cats displaying a striped (agouti) or tabby pelage, whose size has either been exaggerated or which have indeed grown unusually large.⁸ Local suggestions that *ngo ngoe* denotes exclusively male cats apparently reflects the preponderance of males among specimens killed or observed and identified by this name. It is significant, then, that males of *Felis catus* can grow significantly larger than females, as seems especially to be the case among feral populations, where larger male size can be selected for in mating (Liberg et al. 2000: 137–138). Size is also a factor affecting hunting ability. As cats are typically unable to kill prey larger than themselves (Turner and Bateson 2000: 158), the larger the cat the larger will be its potential prey. By the same token, the availability of larger prey would select for larger cats, particularly in feral males whose ranges are typically larger than those of females. For Flores Island, there is no information on demographic or other factors that might favour large male size in gaining mates nor (other than informants' statements) is there any information on feral cat diets. However, it may be relevant that, in Australia, where regional habitats can quite closely resemble ones in eastern Indonesia, feral cats are known to reach a size considerably greater than domestic house-cats. One black-haired specimen, killed in June 2005 by a hunter in the Gippsland region of Victoria, had reputedly attained a head-to-tail length of over 1.7m.⁹

As a possible tendency especially of male feral cats, large size bears on the identity of *ngo ngoe* in another way. As noted, Nage village cats are small, and noticeably smaller than European specimens of *Felis catus* (which appear to provide the measure of species' size in the literature). However, it should further be considered whether the difference in size between these cats and *ngo ngoe* might not reflect the circumstance that cats seen inside Nage villages and houses are more often females, and that these mate with less often seen toms that spend most of their time near village peripheries or in forest. Adult male cats among both domestic and feral populations are considerably larger and can grow to one and a half times heavier than adult females (Fitzgerald and Turner 2000: 162). Also pertinent are differences in range behaviour in male and female cats. As noted, breeding males have much larger ranges than

females, even three to four times larger, and these typically overlap with two or more female ranges. In addition, ranges of feral males can encompass the ranges of domestic females (Sunquist and Sunquist 2002: 106–107; Liberg et al. 2000: 126). It is important to recognise that domesticity or ferality in *Felis catus* is always a matter of degree, the two terms defining a continuum (Liberg et al. 2000: 120–121). In the Nage classification, therefore, *meo bo'a* ('village cat') may best be understood as a reference to cats attached to particular households but which also depend partly on hunting and scavenging – as can far better fed pet cats in the west. As suggested, these may be mostly females. *Meo witu* ('wild' or feral cats), on the other hand, probably refers largely to cats whose males mate with 'domestic' females, live mainly by hunting but also steal poultry and scavenge around village peripheries, and possibly have only relatively recently become independent of human settlements, or 'become feral'. Although a category itself classifiable as a type of 'wild cat' (*meo witu*), *ngo ngoe* would then denote populations that have long been feral and which mostly inhabit forests relatively distant from human habitations. This agrees with informant descriptions of *ngo ngoe* as living separately from other 'wild cats' (which are said to be afraid of them) in rock crevices and caves in more remote and densely wooded areas. Accordingly, while both *ngo ngoe* and smaller, feral cats are described as stealing fowls from settlements, *ngo ngoe* are known to do so far less often. In this view, *ngo ngoe* would also be reproductively self sustaining (or would be more so than other feral cats), and for reasons already noted would tend to a greater size than either 'domestic' toms or smaller 'wild' cats Nage classify as *meo witu*. As mentioned, Nage describe this last category, sometimes in contradistinction to *ngo ngoe*, as interbreeding with village cats, and specifically with village females.

While informant descriptions suggest the main difference between *ngo ngoe* and *meo witu*, or 'other wild cats', is size – the latter being mostly no larger than domestic cats – information on pelage differences is rather more variable. Ordinary wild cats (as they may be distinguished) are often described as possessing striped or spotted (*déto*) coats identical or similar to *ngo ngoe*. On the other hand, Nage say *meo witu* also occur in other colours, for example, all 'yellow', 'white', or 'black', or with mixed dark and light patches. Describing *meo witu* as generally the same size and colour as *meo bo'a* (village cats), one man even claimed that the only way to distinguish the former was by the contents of their stomachs; these, he noted, contain only wild foods, since only village cats are fed on rice and other cooked food. But according to a contrary view, wild cats with other than 'striped' pelage must be *meo coa* (*coa*, 'to flee, escape'), that is, village cats that have only recently left human settlements and have yet to become truly feral. Hence in this assessment, which appears to be empirically well founded, cats lose the various colours and markings characteristic of domestic cats, and revert to the basically tabby pelage of the ancestors of all domestic felines, the longer they have been 'wild'.

Reports of feral cats in other parts of the world indicate a preponderance of particular pelages, including tabby, agouti, orange, and tortoise-shell. In some

rural areas, orange-coloured toms tend to be more aggressive – presumably as an effect of pleiotropy (the production by a gene of two or more unrelated effects in the phenotype) – and therefore better able to mate, so that this colour becomes more frequent (Mendl and Harcourt 2000: 52–54; see also Jones 1977). Since large male size is similarly advantageous in mating, one might further expect this colour to coincide with a larger body. But it is not clear that this colour-linked advantage applies everywhere, or only, to male cats with the orange-allele. On one subarctic island, a preponderant darker phenotype has been shown to reflect, in part and possibly as an effect of pleiotropy, better adaptation to a cold, wet, harsh environment (Van Aarde and Skinner 1981). Another study reports ‘significant differences in body weights of cats between some localities and for one coat colour allele’ (Jones and Horton 1984). Aggressiveness aside, a striped (agouti) or tabby pelage could conceivably confer a selective advantage as camouflage, particularly where wild cats are hunted by humans, as indeed they are on Flores.¹⁰ Alternatively, the pelage could be linked pleiotropically with some other trait selecting for large size among Florenese feral cats.¹¹

It may well be, therefore, that a preponderance of striped or tabby pelage in very big feral cats inhabiting areas at some distance from settlements has led to the impression of a distinct kind of large ‘striped’ cat thus comparable to a ‘tiger’. Expressed another way, the preponderance may have given rise to a stereotype. To this may be added that, while tigers are nowadays known mostly from modern media, some image of tigers, conveyed either by pictures or word of mouth and relating to a large cat or cat-like animal existing on some other Indonesian islands, may very well have been available in eastern Indonesia for some time, and perhaps since the nineteenth century. This too could have influenced Nage cat classification, though as noted above, not to the extent of independently generating the named category *ngo ngoe*. An early familiarity with tigers may partly explain a curiosity of the Holle lists, word registers from numerous Indonesian languages based on a list of words in Dutch and Malay compiled by K. F. Holle (1829–1896), a member of a plantation family based in West Java (see Stokhof 1980–87). Among Holle’s source terms is ‘tiger’ (Dutch *tijger*, Malay *harimau*), and terms supposedly corresponding to ‘tiger’ accordingly appear in some of the earliest word lists for Savunese and Rotinese, languages spoken to the south and southeast of Flores.¹² A word for ‘tiger’ (Malay *harimau*) also occurs in Verheijen’s dictionaries of Manggarai (western Flores; 1967; 1970), here given as *matjang* (current transcription *macang*), an obvious borrowing from Javanese *macan* (‘tiger’).

Nage cat classification, and particularly the identity of *ngo ngoe*, is further illuminated by other comparative evidence. Mammal nomenclatures from the islands of Roti and Sulawesi suggest a tripartite classification of felids identical to that found among the Nage. Both Roti and Sulawesi, it should be noted, are, according to the current zoological consensus, islands which, like Flores, are inhabited by just one kind of cat, *Felis catus*. Besides *meò*, the general term for ‘cat’, Rotinese animal names thus include: *meò aek*, ‘domestic or

house cat' (*aek*, 'native, own'), *meò fuik*, 'wild cat', and *meò-asu*, 'cat as large as a dog, i.e. tiger' (Jonker 1908). *Meò-asu* also appears in the aforementioned Holle lists as the Rotinese word for 'tiger'. Since *asu* is a Rotinese term for 'dog', and appears with the same meaning in many other eastern Indonesian languages, Jonker's translation of *meò-asu* is curious, for not only are there no tigers anywhere near Roti but tigers are of course very much larger than dogs. On the other hand, the gloss 'cat as large as a dog', as well as some association with tigers, immediately – and quite remarkably – recalls Nage descriptions of *ngo ngoe*, and therefore suggests that, whatever the referent of the Nage term might be, Rotinese *meò-asu* quite probably refers to the same thing.¹³

Bolaang-Mongondow, a language of northern Sulawesi, similarly comprises three terms for felids: *pinggo'*, 'cat' (presumably referring primarily to domestic cats); *pinggo' lolog*, 'wild or feral cat', and *linggau*, 'forest cat' (Dutch *boschkat*). The lexicographer in this case, Dunnebie (1951), further remarks that the *pinggo' lolog* resembles the 'usual house cat' but differs from the *linggau*, which he describes as 'very shy'. From this characterisation, it is a reasonable inference that the latter animal is rarely encountered, by contrast to the *pinggo' lolog*, the feral cat whose resemblance to domestic cats recalls the resemblance Nage recognise between *meo* (or *meo bo'a*, 'village cats') and *meo witu*.

Wallace's tiger cat

Another kind of comparative evidence pertains not to folk nomenclature but to the development of western (and nowadays international) zoological knowledge of eastern Indonesia. In the original edition of *The Malay Archipelago* (1872 [1869]: 208), Alfred Wallace listed a very rare 'tiger cat', denominated as *Felis megalotis* (or 'large-eared cat'), as one of just seven land mammals to be found on Timor, the large island situated to the southeast of Flores and immediately east of the much smaller island of Roti. In addition, Wallace described the wild cat as peculiar to Timor and as existing only in the island's interior. Its 'nearest allies', he added, are to be found on the island of Java – in which connection he almost certainly alluded to the leopard cat (*Prionailurus bengalensis*). Interestingly, the name '*Felis megalotis*' is mentioned by Husson in his 1967 letter to Verheijen, in which he registered his opinion on the identity of the 'wild cat' specimen Verheijen sent him from Flores. Husson thus writes: 'I believe it is generally accepted at present that what was at one time described as *Felis megalotis* are feral house-cats, which occur throughout Indonesia.' Wallace's information was most likely taken either from Andrew Murray (1866) or the *British Museum Catalogue of Mammalia and Birds of New Guinea* (1854), from where Murray himself derived information on Timorese fauna. (Murray, it may be noted, describes the feline as further occurring on Sulawesi – the island which, according to Dunnebie's lexicon of Bolaang-Mongondow, would also appear to contain a distinctly named wild cat.) But the ultimate source for *Felis megalotis* is evidently the Dutch naturalist Salomon Müller, whose detailed description of the animal (in

Schlegel and Müller 1839–44) was apparently based on a specimen he himself had observed.

Müller's description is worth reviewing in detail. He describes the cat as a 'new kind' of felid which 'we found only on Timor'. The cat had 'fairly large' and 'spoon-shaped' ears which were much longer (or 'higher standing') than those of another cat he describes, '*Felis minuta*' – and presumably, therefore, also longer than those of a domestic cat. The tail, too, was 'noticeably longer' and had a flattened appearance, owing to the hairs being longest at the two sides. As regards pelage, the ground colour was generally a faded yellow, although more reddish-yellow on the back, while the under parts were more Isabelline (greyish yellow). On the head, shoulders, back legs and tail were black rings, giving the appearance of a dark marbling, while the lower side of the back legs showed black traverse stripes, and the forelegs reddish or dark stripes. Dark striping also occurred on the face, under the eyes and below the ears. The claws were light yellow, and the iris an orange-yellow. The body was 484mm, and the tail 300mm, thus giving a total length of 784mm.

This last figure, it should be noted, falls towards the high end of the normal range for both *Felis catus* and *Prionailurus bengalensis*. Allowing for variation in leopard cat pelage (which can display more striping or rosettes and can show a ground colour more yellowish or reddish), Müller's 'large-eared cat' – or 'tiger cat' as Wallace chose to call it – thus sounds remarkably like *Prionailurus bengalensis*. Noteworthy in this respect is the fact that leopard cats too are distinguished by ears larger and wider than those of *Felis catus*. And it is similarly interesting that Müller compares the animal's size to that of *Felis minuta*, once a synonym for *Prionailurus bengalensis*, especially in reference to the sub-species of leopard cat found in the Philippines.

At present, the stuffed and mounted type specimen of *Felis megalotis* – and therefore evidently the animal described by Müller – is in the possession of the Dutch National Museum of Natural History in Leiden. The specimen is recorded as female and, although Müller's description does not mention this feature either, the animal appears to have rather long legs. This may be significant, as longer legs are a characteristic distinguishing the leopard cat, *Prionailurus bengalensis*, from *Felis catus*.¹⁴ Nevertheless, in spite of this and other correspondences with the former species, as Husson stated in his letter to Verheijen, the verdict of modern zoologists is that *Felis megalotis* was nothing other than a feral cat (*Felis catus*), and the binomial itself has long fallen out of zoological usage. Wallace himself evidently reached the same conclusion, for by the time his great book was published in a revised edition, *Felis megalotis* had disappeared from his list of Timorese mammals, whose number was thereby reduced from seven to six (1962 [1890]: 160). The reason for the deletion is suggested in Wallace's preface to the tenth edition (1890), where he states that, since his book first appeared, 'several naturalists have visited the [Malay] Archipelago', and that, in order to indicate the 'results of their researches', he has added footnotes 'whenever my facts or conclusions have been modified by later discoveries'. Wallace also refers to 'a few verbal

alterations' made 'to correct any small errors or obscurities'. The 'tiger cat' of Timor, however, is not specified in this connection, nor is it mentioned anywhere else in the revised text.

Conclusion

It is quite possible that *ngo ngoe* denotes nothing more than especially large and striped or tabby feral specimens of *Felis catus*; yet the ethnographic evidence still leaves an element of doubt. Even if it could be shown that all Florenese cats were *Felis catus*, the existence of *ngo ngoe* as a distinctly named category does not in any way discredit local observation and classification of felids. All evidence suggests that Nage cat classification is solidly grounded in experience and that Nage are quite accurately observing and describing real animals albeit, in one case, of a variety which, according to their own evaluation, is nowadays rarely encountered. If *ngo ngoe* are simply feral cats, then many Nage folk zoologists – but not all of them – differ from international zoologists in giving these large specimens a distinct name and thus classifying them separately from other feral cats (*meo witu*). Otherwise expressed, their nomenclature reveals what ethnobiologists have called 'overdifferentiation' (Berlin 1973: 268). Yet the taxonomic 'error' with which some Nage might thereby be charged is entirely comparable to the assignment, by western naturalists and international zoologists, of specimens or populations of single felid species to different species – in which respect it should be noted that wide variation, especially in size (length, height, and weight), is typical of the Felidae in general (Sunquist and Sunquist 2002: 6). As clear an example as any of such western or international zoological 'error' is of course the assignment of what were probably no more than Timorese feral cats to the now discredited taxon, *Felis megalotis*.

If, on the other hand, *ngo ngoe* does denote something other than a feral cat – and it is the international zoologists who are wrong and Nage folk zoologists who are right – the most likely candidate would obviously be the leopard cat (*Prionailurus bengalensis*). Since in Southeast Asia this cat belongs primarily to the Oriental biogeographic realm, if leopard cats do occur on Flores, then they almost certainly descend from specimens introduced by humans, as do monkeys, civets, deer, and several other mammalian species. The evidence of Nage folk zoological discourse is obviously not sufficient to confirm the leopard cat's occurrence on Flores. However, Nage descriptions are compelling, and do indeed suggest, at least as a hypothetical possibility, the presence on the island of a felid species other than *Felis catus*. Of course, anything short of a specimen is unlikely to convince international zoologists; nor should it. Yet the absence of physical evidence for a true Florenese wild cat does not mean that there is none to be discovered. After all, in recent years several previously undiscovered species of mammals (and in at least one instance a new genus) have come to light in Southeast Asia, including a Viverrid and a large rodent.¹⁵ Since leopard cats are well known from western Indonesia and other parts of Asia, in this respect the Komodo dragon may provide a more apt comparison. Over the

last hundred years, in all parts of Flores, reports by local people have consistently preceded documentation of the giant lizards by international zoologists (Forth 2010). Thus, one may ask, if local people in central and eastern Flores can be right about Komodo dragons, why cannot they be right about leopard cats as well?

To this, one might reasonably respond: they could be right but they are not so necessarily. But if the matter thus remains open, then Florenese folk mammalogy should provide justification for further zoological investigation in the field. Too often reports by non-western observers of creatures unrecognised by international zoology have been dismissed as unfounded and attributed to beliefs in imaginary or supernatural beings. Yet, as I have explained elsewhere, the people of Flores (to speak only of them) recognise an ontological distinction of 'natural' and 'supernatural' beings (Forth 2012a). The *ngo ngoe* clearly falls into what, for Florenese, is the 'natural' category, just as do local representations of Komodo dragons. The fact that the hominoid figures I have labelled 'wildmen' do so as well (Forth 2012a) possibly complicates the issue, but it by no means nullifies the distinction.

Rather than a reference to a 'mythical' creature subserving some indeterminable symbolic or narrative function, the Nage category *ngo ngoe* is a product of a classification of animal kinds grounded in experience of empirical species. The referent is either large feral cats of a certain appearance or an unrecorded felid species; any other interpretation, and particularly one which construes the reference as a supernatural or imaginary being, not only goes against both ethnographic and zoological evidence but fails to observe the principle of Occam's razor. Whether they ultimately refer to hitherto undocumented species or to specimens of known species erroneously construed as a different kind, cryptid categories like *ngo ngoe* provide anthropologists with a special challenge. But they also provide a special opportunity, a privileged context in which to explore and test the empirical validity of folk taxonomies. And insofar as they do not prove to be invalid, they can be significant for international zoology as well.

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Notes

- 1 Nage has a special term, *pode* or *'o'a pode*, for 'large male monkey' (cf. *'o'a*, dialectal *yo'a*, *ro'a*, 'monkey'). This, however, invariably denotes a male animal of a certain age, and unlike *ngo ngoe* in relation to *meo*, is never construed as designating an animal of a kind separate from other *'o'a*. The Manggarai language of western Flores appears to have more special terms for large males of wild species.
- 2 According to the same source, feral cats (*meo witu*) remain silent when treed but vocalize when savaged, whereas animals that have only very recently become feral (*meo coa*) will miaow when treed.
- 3 In other words, Nage can say that two zoologically closely related animals constitute different 'kinds' (*jenis*) and yet consider them able to mate. At the same time, they can judge two categories as belonging, at some level, to a single 'kind' and yet express doubts about the possibility of their interbreeding. Bearing on the question of folk conceptions approximating scientific conceptions of 'species', this is a complex issue that cannot be explored here (but see Forth 2016). It should be noted, however, that international biology, also, recognises members of different species, even genera, as being able to interbreed while regarding species united at some level of taxonomy (for example, as members of a single genus or family) as being incapable of hybridisation. Indeed, hybridisation of domestic cats (*Felis catus*) and Leopard cats (*Prionailurus bengalensis*), a phenomenon which is itself relevant to the present topic, provides an especially appropriate example of the former possibility.
- 4 Another difference informants mentioned between *ngo ngoe* and (other) *meo witu* concerns their flesh, which, when available, is freely consumed. One man described *ngo ngoe* flesh as tastier than that of other, smaller 'wild cats', which can have a putrid smell. Another compared the former to lamb or mutton. At the same time, the flesh of all 'wild' cats is reckoned to be tastier than the flesh of domestic cats; the latter is less regularly consumed, although not always clearly for this reason.
- 5 On the basis of both scratch marks and reputed sightings, it has been argued that tigers and leopards may still survive on Bali (World Wildlife Fund 1979).
- 6 According to records kindly provided by the museum's staff, the specimen, a complete cat, was collected in October 1958, in the central Manggarai region of Rahong. With other items in Verheijen's collection it was donated to the Leiden museum in 1967 (Steven van der Mije, pers. comm., February 2011).
- 7 As to why Verheijen might have thought a felid other than *F. catus* occurred in western Flores, it is noteworthy that *énggo* is distinct from Manggarai names for domestic cats, several of which, like Nage *meo*, are palpably onomatopoeic. In different dialects, these include *aong*, *ngéong*, *méong*, and *ngaong* (Verheijen 1967). Also locally described as onomatopoeic, Nage *ngo ngoe*, would appear more likely related to these than to *énggo*, but how far this supports an interpretation of the Nage category as a form of *Felis catus* is moot. Whether Manggarai people distinguish *énggo* from feral specimens of *Felis catus* as well as from domestic cats – as Nage do with the three terms *ngo ngoe*, *meo witu*, and *meo bo'a* – is not clear from the lexical materials provided in Verheijen's dictionaries (1967, 1970). Dialectal variants of *énggo* include *nggaro* and *nggaru* (1970: 115, s.v. *kutjing*, *kutjing hutan*). The last two terms are comparable to Bimanese *nggalu*, 'civet' (presumably the Palm civet, *Paradoxorus hermaphroditus*), a Viverrid in several respects similar to a cat which occurs throughout the eastern islands, and to Komodo Island *ngao nggalu*, 'wild cat' (Dutch *wilde kat*; Verheijen 1982).
- 8 'Agouti', a form of striping produced when each hair has alternate dark and light bands, describes the pelage of *Felis silvestris lybicalornate*, the African and Asian wild ancestor of the domestic cat.
- 9 The estimate is based on a photograph taken by the hunter, Kurt Engel, and on the length of the tail (the only part of the animal that was kept), which is variously

- reported as measuring 60 or 65cm. The animal was identified as a specimen of *Felis catus* from genetic testing performed at Monash University. The animal's sex appears not to have been recorded. Source: Darren Nash, 'Australia's new feral mega-cats', 4 March 2007, <http://scienceblogs.com/tetrapodzoology/2007/03/04/australias-new-feral-mega-cats/>. According to the *Guinness Book of Records*, the largest domestic cat on record was 1.219m long.
- 10 A study of thirty-one feral cats in Scotland found that 74 per cent had 'striped tabby pelages'. However, this may partly reflect interbreeding with the European wildcat, *Felis silvestris silvestris* (Daniels et al. 2001).
 - 11 Apart from humans, the only other known central Florenese animals capable of preying on wild cats are feral dogs. Since many Florenese dogs display a brindled coat, it is just conceivable that reports of large striped cats the size of dogs sometimes reflect encounters with feral canines. However, since *ngo ngoe* are generally represented as a kind of cat, and are moreover described as moving rapidly in trees, this would rule out wild dogs as the sole or principal source of the representation.
 - 12 A list of Savunese words collected at the Savunese colony of Melolo in eastern Sumba, for example, gives 'tiger' as *meo ruba*. The term is clearly cognate with – and possibly a borrowing from – Sumbanese *meo rumba* ('wild cat'; *rumba* is 'grass, undergrowth, bush, scrub'), which in that language apparently denotes a feral cat. At present, Sumbanese themselves sometimes gloss *meo rumba* as 'tiger'. They further apply the name to a sort of hairy hominoid deployed as a bogey to frighten disobedient children (Forth 2012a). In the same vein, Wijngaarden (1896), who gives Savunese *meo ruba* simply as 'a kind of animal', additionally lists the expression *ne ne ke meo ruba*, which he describes as 'a saying used to scare children'.
 - 13 In June 2010, after writing the foregoing, I had the opportunity to pursue this matter briefly with Rotinese people I met in Kupang. A man and a woman I questioned agreed that *meò-asu* referred to tigers (*harimau*), but said that the term could also be understood as a composite expression referring to 'cats and dogs' together. The woman further claimed that such *harimau*, or *meò-asu*, were still to be found on Roti and probably on Timor Island as well. The man agreed. Unfortunately, I was unable to clarify how these *meò-asu* might be related to the category *meò fuik* ('wild cat').
 - 14 I am grateful to Professor Colin Groves of the Australian National University for alerting me to the existence of this specimen.
 - 15 The new rodent genus is represented by *Laonastes aenigmamus*, the Laotian rock rat. The type specimen was discovered on sale as a comestible in a market in Laos in 2005.

References

- Berlin, B. 1973. Folk systematics in relation to biological classification and nomenclature. *Annual Review of Ecology and Systematics*, 4, 259–271.
- Ciofi, C. and Gibson, R. 2006. *Research report: A survey on the distribution and status of the Komodo monitor Varanus komodoensis in eastern Flores (Lesser Sunda, Indonesia)*. London: Zoological Society of London.
- Daniels, M.J., Beaumont, M.A., Johnson, P.J., Balharry, D., Macdonald, D.W. and Barrat, E. 2001. Ecology and genetics of wild-living cats in the north-east of Scotland and the implications for the conservation of the wildcat. *Journal of Applied Ecology*, 38(1), 146–161.
- Deag, J.M., Manning, A. and Lawrence, C.E. 2000. Factors influencing the mother-kitten relationship. In *The domestic cat: The biology of its behaviour*, edited by D.C. Turner and P. Bateson. 2nd edn. Cambridge: Cambridge University Press, 23–45.

- De Jong, J.K. 1937. Een en ander over *Varanus komodoensis* Ouwens. *Natuurkundig Tijdschrift voor Nederlandsch-Indië*, 97(8), 173–208.
- Downing, R. 1984. The search for cougars in the eastern United States. *Cryptozoology*, 3, 31–49.
- Dunnebier, W. 1951. *Bolaang Mongondowsch-Nederlandsch woordenboek met Nederlandsch-Bolaang Mongondowsch register*. 's-Gravenhage, the Netherlands: Martinus Nijhoff.
- Fitzgerald, B.M. and Turner, D.C. 2000. Hunting behaviour of domestic cats and their impact on prey populations. In *The domestic cat: The biology of its behaviour*, edited by D.C. Turner and P. Bateson. 2nd edn. Cambridge: Cambridge University Press, 151–175.
- Forth, G. 2004. *Nage birds: Classification and symbolism among an eastern Indonesian people*. London and New York: Routledge.
- Forth, G. 2007. Can animals break taboos?: Applications of 'taboo' among the Nage of eastern Indonesia. *Oceania*, 77(2), 215–231.
- Forth, G. 2010. Folk knowledge and distribution of the Komodo dragon (*Varanus komodoensis*) on Flores Island. *Journal of Ethnobiology*, 30(2), 293–311.
- Forth, G. 2012a. *Images of the wildman in Southeast Asia: An anthropological perspective*. London and New York: Routledge.
- Forth, G. 2012b. Are hairy hominoids worth looking for? Views from ethnobiology and palaeoanthropology. *Anthropology Today*, 28(2), 13–16.
- Forth, G. 2016. *Why the porcupine is not a bird: Explorations in the folk zoology of an eastern Indonesian people*. Toronto: University of Toronto Press.
- Hurn, S. 2009. Here be dragons? No, big cats!: Predator symbolism in rural West Wales. *Anthropology Today*, 25(1), 6–11.
- Husson, A.M. 1967. Letter of 8 November to Father J.A.J. Verheijen SVD. (Unpublished).
- Jones, E. 1977. Ecology of the feral cat on Macquarie Island. *Australian Wildlife Research*, 4, 249–262.
- Jones, E. and Horton, B.J. 1984. Gene frequencies and body weights of feral cats, *Felis catus* (L.), from five Australian localities and from Macquarie Island. *Australian Journal of Zoology*, 32(2), 231–237.
- Jonker, J.C.G. 1908. *Rottineesch-Hollandsch woordenboek*. Leiden: E.J. Brill.
- Lekagul, B. and McNeely, J.A. 1977. *Mammals of Thailand*. Bangkok: Association for the Conservation of Wildlife.
- Liberg, O., Sandell, M., Pontier, D. and Natoli, E. 2000. Density, spatial organisation and reproductive tactics in the domestic cat and other felids. In *The domestic cat: The biology of its behaviour*, edited by D.C. Turner and P. Bateson. 2nd edn. Cambridge: Cambridge University Press, 119–147.
- Mendl, M. and Harcourt, R. 2000. Individuality in the domestic cat: origins, development and stability. In *The domestic cat: The biology of its behaviour*, edited by D.C. Turner and P. Bateson. 2nd edn. Cambridge: Cambridge University Press, 47–64.
- Monk, K., De Fretes, Y. and Reksodiharjo-Lilley, G. 1997. *The ecology of Nusa Tenggara and Maluku*. The Ecology of Indonesia Series, vol. V. Hong Kong: Periplus Editions.
- Ouwens, P.A. 1912. On the large *Varanus* species from the island of Komodo. *Bulletin du Jardin botanique de Buitenzorg*, 2(6), 1–3.
- Payne, J. and Francis, C.M. 2005. *A field guide to the mammals of Borneo*. Kota Kinabalu, Malaysia: The Sabah Society.

- Santiapilli, C. and Supraham, H. 1985. On the status of the leopard cat (*Felis bengalensis*) in Sumatra. *Tigerpaper*, 12, 8–13.
- Schlegel, H. and Müller, S. 1839–44. *Verhandelingen over de natuurlijke geschiedenis der Nederlandsche Overzeesche Bezittingen, door de leden der Natuurkundige Commissie in Indië en andere schrijvers; uitgeven op last van den Koning door C.J. Temminck*. Vol. 2, Zoologie. Leiden, the Netherlands: S. en J. Luchtmans en C.C. van der Hoek.
- Sterndale, R.A. 1884. *Natural history of the mammalia of India and Ceylon*. Calcutta: Thacker and Spink.
- Stokhof, W.A.L. (ed.) 1980–87. *Holle lists: Vocabularies in languages of Indonesia*. 11 vols. Pacific Linguistics Series D. Canberra: Department of Linguistics, Research School of Pacific and Asian Studies, Australian National University.
- Sunquist, M. and Sunquist, F. 2002. *Wild cats of the world*. Chicago and London: University of Chicago Press.
- Turner, D.C. and Bateson, P. (eds) 2000. *The domestic cat: The biology of its behaviour*. 2nd edn. Cambridge: Cambridge University Press.
- Van Aarde, R.J. and Skinner, J.D. 1981. The feral cat population at Marion Island: colonization, characteristics, and control. *Comité National Français Recherches Antarctiques*, 51, 281–288.
- Van Suchtelen, B.C.C.M.M. 1921. *Endeh (Flores)*. Mededeelingen van het Bureau voor de Bestuurszaken der Buitengewesten, bewerkt door het Encyclopaedisch Bureau, Afl. 26. Weltevreden: Papyrus.
- Verheijen, J.A.J. 1967. *Kamus Manggarai I: Manggarai-Indonesia*. 's-Gravenhage: Martinus Nijhoff.
- Verheijen, J.A.J. 1970. *Kamus Manggarai II: Indonesia-Manggarai*. 's-Gravenhage: Martinus Nijhoff.
- Verheijen, J.A.J. 1982. *Komodo: Het eiland, het volk en de taal*. Verhandelingen van het Koninklijk Instituut voor Taal-, Land-, en Volkenkunde 96. The Hague: Martinus Nijhoff.
- Wallace, A.R. 1872 (1869). *The Malay archipelago: The land of the orang-utan and the bird of paradise: A narrative of travel, with studies of man and nature*. London: Macmillan.
- Wallace, A.R. 1962 (1890). *The Malay archipelago: The land of the orang-utan and the bird of paradise: A narrative of travel, with studies of man and nature*. 10th edn. New York: Dover.
- Wijngaarden, J.K. 1896. *Sawuneesche woordenlijst*. 's-Gravenhage: Martinus Nijhoff.
- World Wildlife Fund. 1979. *Report on the presence of larger cats on Bali Island and a survey on the Rothschild's starling (Leucopsar rothschildi, Stresemann 1912)*. Bandung, Indonesia: World Wildlife Fund.